

Notice of Allowability

Application No.

10/695,211

Examiner

Allen C. Ho

Applicant(s)

ROSS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 11 January 2007.
2. ☒ The allowed claim(s) is/are 1-3, 10-13 and 20-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Phillip A. Shipley (Reg. No. 51,357) on 19 March 2007.

The application has been amended as follows:

- (1) Claim 1, line 9, "collimator" has been replaced by --at least one radio opaque member--.
- (2) Claim 20, line 5, "a" before "radiation source" has been replaced by --the--.
- (3) Claim 20, line 10, "a" before "detector" has been replaced by --the--.

Allowable Subject Matter

2. Claims 1-3, 10-13, and 20-22 are allowed.
3. The following is an examiner's statement of reasons for allowance:

With regard to claims 1-3, 10, 21, and 22, the prior art discloses an imaging system that comprises: a gantry comprising: a radiation source configured to generate a beam; a collimator configured to collimate the beam to generate a collimated beam; and a detector configured to detect the collimated beam; wherein the collimator is separate from the detector and comprises at

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least one radio opaque member having a curved contour proportional to a contour of the detector, wherein the at least one radio opaque member includes a first portion and a second portion spaced a distance from the first portion. However, the prior art fails to disclose a collimator that comprises: at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein the at least one radio opaque member includes a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry as claimed.

With regard to claims 11-13, the prior art discloses a computed tomography imaging system that comprises: a gantry comprising: an x-ray source configured to generate a beam; a collimator configured to collimate the beam to generate a collimated x-ray beam; and a detector configured to detect the collimated x-ray beam; wherein the collimator is separate from the detector and comprises at least one radio opaque member having curved contour proportional to a contour of the detector, wherein the at least one radio opaque member comprises a first portion and a second portion. However, the prior art fails to disclose a collimator that comprises: at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein the at least one radio opaque member comprises a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry as claimed.

With regard to claim 20, the prior art discloses a method for reducing dosage of radiation incident on a subject, the method comprises: providing a gantry that comprises a radiation

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source, a collimating device, and a detector; transmitting, from the radiation source, a beam of radiation toward the subject; collimating the beam of radiation before the beam reaches the subject; and detecting, by the detector, the collimated beam of radiation, wherein the collimating is performed by the collimating device that is separate from the detector and includes at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein the at least one radio opaque member includes a first portion and a second portion spaced a distance from the first portion. However, the prior art fails to disclose a collimating device that comprises: at least one radio opaque member having a curved contour proportional to a contour of the detector, wherein the at least one radio opaque member includes a first portion and a second portion spaced a distance from the first portion, wherein the first portion and the second portion are each configured to move along a direction substantially parallel to a rotational axis of the gantry as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

4. Applicant's amendments filed 11 January 2007 with respect to claims 2, 3, and 11-13 have been fully considered and are persuasive. The objections of claims 2, 3, and 11-13 have been withdrawn.

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5. Applicant's amendments filed 11 January 2007 with respect to claims 1, 2, 10-12, and 20-22 have been fully considered and are persuasive. The rejection of claims 1, 2, 10-12, and 20-22 under 35 U.S.C. 102(e) as being anticipated by Popescu (U. S. Patent No. 6,501,828 B1) has been withdrawn.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

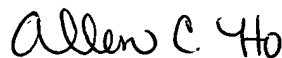
Distler *et al.* (U. S. Patent No. 7,170,975 B2) disclosed a computed tomography system that comprises a collimator (3), the collimator includes a first portion (30) and a second portion (31) spaced from the first portion, wherein the first portion and the second portion are each configured to move along a direction (40, 41) substantially parallel to a rotation axis of a gantry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Allen C. Ho, Ph.D.
Primary Examiner
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19 March 2007